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10/649,872	08/28/2003	Seiji Takahashi	01272.020625.	6360

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EXAMINER

GARCIA JR, RENE

ART UNIT PAPER NUMBER

2853

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,872

Applicant(s)

TAKAHASHI ET AL.

Examiner

Rene Garcia, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 9 is/are rejected.
- 7) ☒ Claim(s) 3, 4 and 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/26/05 & 8/31/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drynkin et al. (US 6,580,444) in view of Cummins et al. (US 6,760,052) and Gysling (US 5,188,351).

Drynkin et al. disclose the following claimed limitations:

*regarding claims 1, and 5, printing apparatus and method/**printer, 10/** for printing on a print medium/**compact disk, 20/** with a print head/**26/** comprising: (fig. 1)

*tray/**print tray, 22/** on which to place the print medium/**20/** (co. 5, lines 14-16)

*tray guide/**rack unit, 78/** removably mounted (fig. 4 - attached underside of print tray/**22/**; col. 6, lines 11-14 & col. 4, lines 4-6) to the printing apparatus/**10/** to support said tray/**22/** so that said tray/**22/** can be fed (fig. 4; col. 6, lines 24-26)

*detecting portion/**photo-sensor, 152/** for detecting whether or not said tray guide/**78/** is mounted to the printing apparatus/**10/** (col. 6, line 61- col. 7, line 6; detects latching mechanism 132 engaged thereby triggering flag/**150/**)

*carriage/**print head chassis, 28/** (fig. 2)

Drynkin et al. does not disclose the following claimed limitations:

*regarding claims 1 and 5, carriage that moves with the print head mounted thereon

*control means for limiting movement of said carriage when said detecting portion detects that said tray guide is mounted to the printing apparatus

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Cummins et al. disclose the following:

*further regarding claim 1, carriage/**upper end, 17/** that moves with the print head/**16/** mounted thereon (fig. 3; col. 3, lines 6-11) for the purpose of moving the print head laterally across the print region.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize a carriage that moves with the print head mounted thereon as taught by Cummins et al. into Drynkin et al. for the purpose of moving the print head laterally across the print region.

Gysling disclose the following:

Cummins et al. includes central controller/**19/** (control means) for controlling the various operations of the apparatus including controlling the print head motor (movement of carriage) (col. 3, lines 25-29)

*further regarding claims 1 and 5, control means for limiting movement of said carriage/**HC/** (fig. 18; col. 5, lines 17-23) for the purpose of preventing ink ejection onto a portion where no paper sheet/medium/ is present.

Gysling discloses detection of a cassette/tray/ (col. 1, lines 13-20) with varying paper/medium/ sizes. Based on paper/medium/ size the page layout is formatted to fit on paper present (col. 1, lines 45-59), which is carried out after cassette has been detected.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize control means for limiting movement of said carriage as taught by Gysling into Drynkin et al. for the purpose of preventing ink ejection onto a portion where no paper sheet/medium/ is present.

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3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drynkin et al. (US 6,580,444) as modified by Gysling (US 5,188,351) as applied to claim 1 above, and further in view of Kaneko et al. (US 6,250,735).

Drynkin et al. as modified by Gysling disclose the claimed limitations except for the following:

*regarding claim 2, print head is removable from the carriage and a replacing position for attaching or detaching the print head or an ink tank for feeding ink to the print head is arranged at a position overlying a feeding path of the print medium

Kaneko et al. disclose the following:

*regarding claim 2, print head/**300a & 300b**/ is removable (col. 3, lines 39-42) from the carriage/**64**/ and a replacing position for attaching or detaching the print head/**300a & 300b**/ or an ink tank for feeding ink to the print head/**300a & 300b**/ is arranged at a position overlying a feeding path/**central position of the printer**/ of the print medium (col. 3, lines 15-23) for the purpose of servicing operations.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize print head is removable from the carriage and a replacing position for attaching or detaching the print head or an ink tank for feeding ink to the print head is arranged at a position overlying a feeding path of the print medium as taught by Kaneko et al. into Drynkin et al. as modified by Gysling for the purpose for the purpose of servicing operations.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drynkin et al. (US 6,580,444) in view of Sasi et al. (US 2002/0067940).

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Drynkin et al. disclose the following claimed limitations:

*regarding claim 9, printing apparatus/**printer, 10/** for printing on a print medium/**compact disk, 20/** with a print head/**26/** comprising: (fig. 1)

*tray/**print tray, 22/** on which to place the print medium/**20/** (co. 5, lines 14-16)

*tray guide/**rack unit, 78/** removably mounted (fig. 4 - attached underside of print tray/**22/**; col. 6, lines 11-14 & col. 4, lines 4-6) to the printing apparatus/**10/** to support said tray/**22/** so that said tray/**22/** can be fed (fig. 4; col. 6, lines 24-26).

*detecting portion/**photo-sensor, 152/** for detecting whether or not said tray guide/**78/** is mounted to the printing apparatus/**10/** (col. 6, line 61- col. 7, line 6; detects latching mechanism 132 engaged thereby triggering flag/**150/**)

Drynkin et al. does not disclose the following claimed limitations:

*regarding claim 9, auto-feeder for feeding a sheet material to the print head

*wherein said tray guide feeds said tray when said detecting portion detects that said tray guide is mounted to the printing apparatus, and said auto-feeder feeds the sheet material when said detecting portion detects that no tray guide is mounted to the printing apparatus

Sasai et al. disclose the following:

*regarding claim 9, auto-feeder/**ASF, 158/** for feeding a sheet material/**recording media, 2/** to the print head/**recording head, 162/** (fig. 8; paragraph 0260) for the purpose of feeding multiple sheets

*wherein said tray guide feeds said tray when said detecting portion detects that said tray guide is mounted to the printing apparatus, and said auto-feeder feeds the sheet material when

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said detecting portion detects that no tray guide is mounted to the printing apparatus (paragraph 0265-0267) for the purpose of feeding multiple sheets or a specialty media(CD-R)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize an auto-feeder for feeding a sheet material to the print head; wherein said tray guide feeds said tray when said detecting portion detects that said tray guide is mounted to the printing apparatus, and said auto-feeder feeds the sheet material when said detecting portion detects that no tray guide is mounted to the printing apparatus as taught by Sasi et al. into Drynkin et al. for the purpose feeding multiple sheets; and feeding multiple sheets or a specialty media(CD-R).

Response to Arguments

5. Applicant's arguments filed on 31 August 2005 have been fully considered but they are not persuasive. Applicant states that neither Drynkin et al. nor Sasai et al. disclose or suggest a tray guide that is removably mounted to the printing apparatus to support the tray. Drynkin et al. includes a rack unit/78/ as shown in figure 4 that supports print tray/22/ and is removably mounted to the printing apparatus/10/ (col. 4, lines 4-6). Applicant states that Drynkin et al. nor Sasai et al. are not believed to disclose or suggest a tray guide feeding the tray when detected that the tray guide is mounted to the printing apparatus, and an auto-feeder feeding sheet material when detected that no tray guide is mounted to the apparatus, as recited in independent Claim 9. Sasai et al. includes an auto-sheet feeder/ASF/ in figure 8 and used accordingly as claimed in independent Claim 9 (paragraphs 0260 & 0265-0267).

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6. Applicant's arguments with respect to claims 1 and 5, with regards to limiting movement of the carriage when it is detected that the tray guide is mounted, have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments with respect to claim 3, in regards to Myung, have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claims 3, 4, and 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claim 3 is the inclusion of the limitations being for a printing apparatus wherein said control means prohibits the movement of the carriage to the replacing position when said detecting portion detects that said tray guide is mounted to the printing apparatus. It is this limitation found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimomura et al. (US 2002/0057302) disclose an ink jet recording apparatus having a paper gap switching porting for switching paper gaps by moving a recording head.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rene Garcia Jr
04 November 2005

 11/05
K. FEGGINS
PRIMARY EXAMINER